

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1. (Cancelled).

2. (Currently Amended) A liquid droplet ejection apparatus comprising:

a function liquid droplet ejection head disposed such that a nozzle surface thereof lies in parallel with a workpiece;

gap measuring means for measuring a workpiece gap between a workpiece surface and a nozzle surface; and

gap adjusting means for adjusting the workpiece gap based on a result of measurement by said gap measuring means, said adjusting being made by relative movement of said function liquid droplet ejection head and said workpiece in a vertical direction, and

water head adjusting means for adjusting a water head of said function liquid droplet ejection head relative to a function liquid tank for supplying said function liquid droplet ejection head with a function liquid by vertically moving said function liquid droplet tank based on the result of measuring by said gap measuring means;

wherein said function liquid droplet ejection head is mounted on a sub-carriage, and wherein said gap adjusting means comprises:

a base which supports said sub-carriage in a manner slidable in a vertical

direction;

an actuator which is fixed to said base;

a male screw member which is rotated in one direction and in an opposite direction by said actuator; and

a female screw member which is provided in said sub-carriage so as to engage in a screwed manner with said male screw member.

3. (Previously Presented) A liquid droplet ejection apparatus comprising:

a function liquid droplet ejection head disposed such that a nozzle surface thereof lies in parallel with a workpiece;

gap measuring means for measuring a workpiece gap between a workpiece surface and a nozzle surface; and

gap adjusting means for adjusting the workpiece gap based on a result of measurement by said gap measuring means, said adjusting being made by relative movement of said function liquid droplet ejection head and said workpiece in a vertical direction,

wherein said gap adjusting means moves said function liquid ejection head in a vertical direction relative to the workpiece, said apparatus further comprising:

a function liquid tank for supplying said function liquid droplet ejection head with a function liquid; and

water head adjusting means for adjusting a water head of said function liquid ejection head relative to said function liquid tank by vertically moving said function liquid droplet tank based on the result of measuring by said gap measuring means.

4. (Original) The apparatus according to claim 3, wherein said function liquid tank is held by a tank holder, and wherein said water head adjusting means comprises:

a tank base for supporting said tank holder in a manner slidable in a vertical direction;

an actuator which is fixed to said tank base;

a male screw member which is rotated by said actuator in one direction and in an opposite direction; and

a female screw member which is provided in said tank holder so as to be engaged in a screwed manner with said male screw member.

5. (Original) The apparatus according to claim 3, further comprising:

a function liquid supply means for supplying said function liquid tank with a function liquid; and

a liquid level sensor for detecting a liquid level inside said function liquid tank,

wherein said function liquid supply means supplies the function liquid so as to attain a constant liquid level in said function liquid tank based on a result of detection by said liquid level sensor.

6. (Currently Amended) A liquid droplet ejection apparatus comprising:

a function liquid droplet ejection head disposed such that a nozzle surface thereof lies in parallel with a workpiece;

gap measuring means for measuring a workpiece gap between a workpiece

surface and a nozzle surface; and

gap adjusting means for adjusting the workpiece gap based on a result of measurement by said gap measuring means, said adjusting being made by relative movement of said function liquid droplet ejection head and said workpiece in a vertical direction; and

water head adjusting means for adjusting a water head of said function liquid droplet ejection head relative to a function liquid tank for supplying said function liquid droplet ejection head with a function liquid by vertically moving said function liquid droplet tank based on the result of measuring by said gap measuring means;

wherein said function liquid droplet ejection head is mounted on said a carriage, and wherein said gap measuring means comprises:

position measuring means for measuring a position of the workpiece in a vertical direction, said position measuring means being mounted on said carriage; and

computing means for computing the workpiece gap based on a result of measurement by said position measuring means.

7. (Currently Amended) A liquid droplet ejection apparatus comprising:

a function liquid droplet ejection head disposed such that a nozzle surface thereof lies in parallel with a workpiece;

gap measuring means for measuring a workpiece gap between a workpiece surface and a nozzle surface; and

gap adjusting means for adjusting the workpiece gap based on a result of measurement by said gap measuring means, said adjusting being made by relative

movement of said function liquid droplet ejection head and said workpiece in a vertical direction; and

water head adjusting means for adjusting a water head of said function liquid droplet ejection head relative to a function liquid tank for supplying said function liquid droplet ejection head with a function liquid by vertically moving said function liquid droplet tank based on the result of measuring by said gap measuring means;

wherein said workpiece is set in position on a worktable, and wherein said gap measuring means comprise:

position measuring means for measuring a position of the workpiece and a position of the worktable in a vertical direction; and

computing means for computing the workpiece gap based on a result of measurement by said position measuring means.

8 - 12. (Cancelled).